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News Fact Sheet

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Intel Developer Forum Taipei Day 2 News Disclosures

Oct. 21, 2008: Intel Corporation is holding its Intel Developer Forum in Taipei from Oct. 20-21. Below are brief summaries and news highlights from Mooly Eden and Shane Wall and Wen-Hann Wang's keynote speeches.

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Mooly Eden, "Expanding the Frontiers of Mobility"
Corporate Vice President, General Manager, Mobile Platforms Group, Intel Corporation
In his keynote address, Mooly Eden today described the latest Intel mobile technologies for "expanding the frontiers of mobility" as newer Internet applications continue to drive how people use their PCs, placing new demands on performance and capabilities requirements. Eden showed an early working 2009 mobile platform codenamed "Calpella" based on the new Nehalem architecture, as well as the new Intel mobile quad-core processor-based notebooks raising the bar on the ultimate HD multimedia and gaming experience.
Eden also discussed Intel's new mobile concept: UrbanMax featuring small form factor Intel Centrino 2 Processor Technology and key mobile platform enhancements, including the Intel® High-Performance SATA Solid-State Drive Product Line, HD Playback and Touchscreen Displays. Together with a robust showcase of laptops and netbooks, Eden demonstrated the extensive design possibilities and devices made possible by Intel's mobile processor technologies.

Calpella Platform Architecture – Intel's next-generation mobile platform powered by the upcoming 45nm-based Nehalem Architecture will offer better performance and energy efficiency in innovative form factors. Calpella takes advantage of specific features of the new Nehalem architecture for improved mobile platform performance and energy efficiency in a number of ways:

- **Higher integration** – Integrated Memory Controller (IMC) and graphics into the processors; and Display, Intel® Management Engine, NVM controllers, clock buffers gets integrated into the PCH.
- **Integrated Power Gate** – Enables energy-efficient integration of power switches that can turn cores on or off when not in use, with near-zero leakage power; based on process breakthrough which makes active/sleep transitions much faster. Integrated Power Gate technology will also be used in the memory system, cache and IO to dynamically power down these sub-systems when not in use.
- **Modular/ Scalable Clocking –** Allows core, memory system and I/O to run at independent voltage and frequency enabling faster response time and improved energy efficiency.
- **Other features:** Calpella will also incorporate Intel® Turbo Boost Technology with Enhanced Intel® SpeedStep® technology to increase energy efficiency; Intel® Hyper-Threading Technology for simultaneous multi-threading and the Loop Streaming Detector for handling replays and large loops, saving power by as much as four fold.

Mobile Quad Core Processors -- Intel's first mobile quad-core processors, the Intel® Core™2 Extreme QX9300 and the Intel® Core™ 2 Quad Q9100, offer four separate and powerful processing cores to deliver unprecedented multi-threading performance:
- **World's first and highest-performing mobile quad-core processor** – Intel 45nm hi-K process technology; four cores running at 2.53 GHz with a 1066MHz FSB and 12MB L2 cache.
- **Ultimate Gaming and Multimedia engine** -- Incredible performance on highly threaded applications; great game play and realism on immersive multi-threaded games; headroom for the growing number of multi-core- enabled games and applications; overspeed protection removed to enable system tuning for maximum performance.
- More information: www.intel.com/products/processor/core2xe/mobile/index.htm.
- **Intel's best quad core mobile processor technology** -- The Intel Core 2 Quad Q9100 is a new CPU for the Intel® Centrino® 2 processor technology and Intel® Centrino® 2 with vPro™ technology lineup. Offering quad-core performance for intensive, demanding HD multimedia and workstation applications and industry-leading battery life for quad-core processing, the mobile quad-core processor is based on Intel's 45nm hi-K process technology running at 2.26 GHz, with a 1066MHz FSB and 12MB L2 cache.

UrbanMax: The New Intel Mobile Concept – UrbanMax is a new 2008 Mobile Concept based on Intel's latest small form factor (SFF) technology that allows grounds-up design targeting Web 2.0 usages and users. SFF-based platform components can be made up from a number of new SFF Intel processors, Intel® High Performance SSD, HD Playback and 11.1" Touchscreen Display.
- **Small Form Factor Processors** – Eight new small form factor processors, including two Power Optimized Performance, two new low-voltage, and two new ultra low-voltage Intel® Core™2 Duo processors, as well as a new Intel® Core™2 Solo processor, a new Intel® Celeron processors and Intel® Atom processors.
- **Form Factor Resolution –** Now introducing Intel® Centrino® 2 processors allowing 58 percent reduction in area, 68 percent reduction in volume resulting in lower power consumption and smaller die sizes.
- **Lower TDP** – Intel's new small form factor processors have lower TDPs than typical 35W mobile mainstream products and come in smaller package sizes (22x22mm vs. 35x35mm).

- **Multiple Operation Modes in a Single UrbanMax Device** – "On the go" mode features latest touch interface technology, and "on the go keypad" mode allowing key/touch interaction, and "lap top" mode delivering a look and feel of traditional mobile platforms.

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Shane Wall, "Mobile Internet Devices: The Innovation Platform," Vice President of Intel's Mobility Group and Director, Strategic Planning, Platform Architecture and Software, Ultra Mobility Group
Shane Wall led the Ultra Mobility Group keynote describing how the Internet is positioned to go mobile, Intel's inherent advantages in the MID segment, and the progress Intel is making on the silicon, platform, and ecosystem fronts. Wall discussed the increasingly pervasive nature of the Internet and the trends accelerating this growth including social networking, user-generated content and location-based services. Users want to carry this Internet experience with them in their pockets (or purses). He said that the Intel® Atom™ processor Z5xx series-based MIDs are continuing to become platforms for innovation in the mobile ecosystem and showcased a number of devices coming to market.

Intel® Atom™ Processor-based MIDs Deliver High Performance, Low Power and Software Compatibility: Wall reinforced how the Intel Atom processor delivers the highest performance in the sub 3W segment, while consuming dramatically lower power, with >2x performance against today's marketplace competition. Wall demonstrated Intel's highest-performance Atom processor, 1.86GHz, on an OQO Productivity MID and showcased "World of Warcraft," one of the most intensive online games on the device. He also showcased support of Full HD (1080p, 30fps) in the Intel® System Controller Hub and highlighted the inherent advantage IA MIDs have in delivering Internet compatibility.

First-Generation MIDs Continue to Hit the Market: Wall announced the launch of the Compal device, branded "My PC Pocket," on the SFR network in France. The device boasts of a compelling UI, integrated apps and services from the SFR portal, seamless WiFi and 3G roaming, and an SFR apps store with easy access to rich content and services. Wall also spotlighted a number of MIDs in his keynote including the Productivity MID from Kohjinsha, the Clarion Mobile Internet Navigation Device (MiND), and the BenQ Entertainment/Communication MID recently deployed on the TIM network. Additionally, Wall outlined the growing momentum behind MIDs with strong interest from Aigo*, Asus*, BenQ*, BYD*, Clarion*, Compal*, Digifriends*, Fujitsu*, Gigabyte*, Hanbit*, Innowell*, Inventec*, Kohjinsha*, Lenovo*, OQO*, Panasonic*, PearTree*, Sharp*, Sony*, Trigem*, Techfaith*, USI*, Wibrain* and Yukyung*.

MID Ecosystem Continues to Gain Momentum: The MID software ecosystem based on Moblin (www.moblin.org) continues to gain momentum with thousands of community developers and hundreds of ISVs actively working to deliver middleware and applications for MIDs. Wall welcomed Neusoft*, a premier software and services company in China, to his keynote, reinforced that Neusoft has joined the MID ecosystem, and is working with MID customers to deliver Moblin compliant apps and SI services. Wall also demonstrated a prototype device from Yukyung, one of the leading CE vendors from Korea, and Haansoft, an Asianux consortium member who has integrated more than 10 applications into a compelling 3-D "Cube" UI. Previously, Nuance Communications* had participated in the opening keynote where they had showcased how speech can deliver an intuitive user experience. Additionally, Intel announced a number of industry leaders who are joining the MID ecosystem including California Micro Devices* (MIPI display bridge), Fluendo* (media player and codecs), Gameloft* (casual

gaming), GyPSii* (location-based social networking), Livecast* (streaming video), Minigate* (widget engine), Move Networks* (Internet video delivery solutions), Mytopia* (social networked casual gaming), Navteq* (location-based services ecosystem), Orb Networks* (anywhere media access), and TuneWiKi* (next-generation music player).

Intel Spotlights Taiwan Innovation: Wall showcased the world's thinnest MID based on the Intel Atom processor from USI. He also applauded the success of the MID Innovation Alliance that Intel announced about 18 months ago and congratulated the progress made by BenQ*, Compal*, Inventec* and Quanta* in building compelling MIDs and bringing them to market. Wall announced that Intel is working with the alliance members (Asus*, BenQ*, Compal*, EB*, HTC*, Inventec*, Quanta*) on the Moorestown platform and is adding a new member, Compal Communications* (CCI), to the alliance given its strong competency in the communications space.

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Wen-Hann Wang
Vice President, Software and Solutions Group
General Manager, Software and Solutions and Product Development, China
The Moblin story continued with Wen-Hann Wang's keynote highlighting both the addition of new open source operating system vendors (OSVs) delivering Moblin compliant distributions as well as new technologies added to the open source code base.

Moblin momentum and enhancement: Covering a broad range of implementations, the new OSVs include Novell as well as C2SC, gOS, Mandriva, Pixart, and TurboLinux. As for the new Moblin technologies, Wang showed a video of a three dimensional user interface (3DUI) running on a mobile Internet device (MID). This UI is unique in its flexibility for developers to adapt and differentiate based on the type of MID device as well as its innovative multitasking features. Wen-Hann noted that developers may download and access the UI concept code through the moblin.org community. Wang was joined by executives from several companies who offer a complete Moblin based solution for netbooks including Acer and Asus, and executives from Xandros (Asus) and Linpus (Acer) – OSVs who recently joined the Moblin project. The demonstrations showed a faster boot feature and a complete netbook Internet on-the-go experience with full featured browsers, IM, email and gaming.

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